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ABSTRACT

Report of a pioneer study comparing social and economic impact of illiteracy with that produced by literacy, and identifying trends and necessary modifications in current literacy program in order to increase its effectiveness in ecopomic and social development is presented. Questionnaires were administered through personal interviews in both agricultural and industrial sectors. Results show that literacy can be considered among important variables in measuring change; there is need for educational materials and aids relevant to production in agriculture as well as in industry, and for modification of current literacy programs. (NF)

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An Empirical Investigation

by

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Research Expert, Social Science Division

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I. THE STUDY

A. Objective of the Study.

The objective of this research is to compare the social and economic impact of illiteracy with that produced by literacy.

Another objective sought by this study is to identify the trends and the necessary modifications in the current literacy programme in order to increase its effectiveness in the efforts towards economic and social development.

B. Identification of the Research Problem.

The research problem can be identified in the following questions:

1- What are the impressions of illiterates, literates and production supervisors (both in the agricultural and industrial sectors) on the socail and economic impact of illiteracy on production both qualitively and quantitatively ?

2- What are the impressions of literacy and production supervisors in industr and agriculture on the social and economic impact of current literacy programmes on production qualitatively and quantitatively ?

3. What is the extent of agreement-disagreement in the following :

   a) The impressions of literates and production supervisors in agriculture and industry concerning the socio-economic impact of illiteracy with that of literacy on production from the qualitative and quantitative points of view.

b) The impressions of the above respondents categories concerning the impact of illiteracy with that of literacy on certain behavioural aspects linked with development in the industrial sector.

4- What are the impressions of illiterates, literates and production supervisors in agricultural and industrial sectors on the advantages and disadvantages in current literacy programmes ?

5- What are the impressions of the same categories on the modifications and improvements which should be incorporated in current literacy programmes in order to increase its effectiveness in raising production standards ?

6- What is the extent of agreement-disagreement in impressions according to industrial and agricultural sectors, and according to respondents' categories of both sectors ?

C. Importance of This Research Investigation.

This research investigation is a pioneer study in this part of world, since few studies have been undertaken during the past decade on the problems of illiteracy and its relevance to production and productivity.

The importance of this study can be summarized as follows:

1- Evaluation of social and economic impact of illiteracy, including an account of the extent of loss incurred as a result of illiteracy, will help in identification of

advantages and disadvantages of current literacy programmes and in introducing new elements in the planning of future literacy and adult education programmes.

2- Assessment of impressions and opinions of illiterates, literates and production supervisors on the question of improving current literacy programmes contributes to facilitation of appropriate conditions for meeting the needs and motivation of illiterates towards learning on the one hand, and to increase the effectiveness of educational functional programmes with the objective of raising individual and community socio-economic standards on the other.

3- Making use of research tools in various aspects of literacy research. The fact that evaluation tools were devised for this empirical investigation, will aid researchers and planners in making further invistigation in this problem.

4- Assessment of degree of agreement and disagreement among the impressions and opinions of respondents in agricultural and industrial sectors contributes towards the transition in literacy programmes from the traditional to the functional methods in accordance with the prevailing development plans.

D. Definition of Concepts.

It is meant by illiterates those persons who read or write and whose ages are above 15 years from among farmers and industrial workers,

Literates are considered to be those adults who enrolled in the literacy classes and reached the of 4th elementary-grade level from among farmers and industrial workers, and whose ages are above 15 years.

Production Supervisors are those who can master reading and writing, or have acquired a minimum of the elementary education certificate, and whose ages are above 15 years. Their work should deal with supervision of various production activities, either directly or indirectly. For example they may be supervisors of cooperative societies, agricultura extension engineers, or heads of production units in industry.

Impediments to Production refers to those variables which have directive aspects of production as measured through the questionnaires used in this study. Examples of such variables which have direct bearing on production include the following:

Lack of application of modern farming techniques, use of insecticides in agricultural practices, misuse of raw materials, increasing production costs and other improper industrial practices. As for variables which relate indirectly to production in the agricultural sector, indebtedness, polygamy, high fertility rates are a few of the examples which tend to affect the workers' production and productivity. High rates of consumption in addition to low levels of income tend to decrease economic surplus at the national level and accordingly the development rate is decreased.

E. Assumptions.

1- Illiteracy is considered as an impediment to production and productivity in the current development plans of of the Arab Republic of Egypt, the country in which the research was conducted.

2- The opinions, views and impression of the six respondent categories in both the industrial and agricultural sectors reflect, with a reasonable degree of accuracy, the real socio-economic impact of illiteracy and that of literacy programmes.

3- Illiterates, literates and production supervisors represent three main strategic sources of identification of socio-economic impact of illiteracy as well as literacy programmes.

4- The verbal expressions of respondents in the above mentioned categories reflect to a reasonable degree of accuracy their real attitudes and impressions towards the various issues raised in this study.

II. METHODOLOGY

The method applied in conducting the field research in this stuty is based on the following :

1- Investigation of impressions of the three categories in both industrial and agricultural sectors, namely: illiterates, literates and production supervisors on the following areas:

a) The socio-economic impact of illiteracy and literacy

b) Evaluation of current literacy programmes and approaches for furthre development

In order to assess the impressions of the respondents on these issues, six questionnaires were constructed, pretested and administered. For each of the categories in the agricultural and industrial sector, a separate questionnaire was applied.

2- Comparing real impact of illiteracy with that of literacy on certain actual behavioural aspects of respondents. Records and files of illiterates and literates were consulted for this purpose in the industrial sector only since it is difficult to obtain such data about farmers in the agricultural sector.

Research Tools

The research tools used in this study were only two;

a) questionnaires administered through personal interviews,

b) official files and records.

A. The Questionnaires

For the purposes of this research six questionnaires were constructed and administered to each of the following respondent categories :

In the agricultural sector :

1- Illiterate farmers
2- Literate farmers
3- Agricultural supervisors

In the industrial sector :

4- Illiterate workers
5- Literate workers
6- Industrail supervisors

Each questionnaire designated for the above categories consisted of two main parts: one pertains to personal data and the other relates to their impressions on the problems entailed in the study.

1. Construction of Questionnaires.

In constructing questions, the following were taken into consideration:

a) using the colloquial language to facilitate communication with respondents, especially the illiterates, to make them feel at ease, and b) both open-and closed ended questions were used. The questionnaires were pretested nearly five times before they were finally administered.

As for the validity of the schedules, it depends largely on the contents. Supervisors of this research were confident of the applicability of the questionnaires. Sequential analysis of the sample was in order to ensure that the volume of the sample was representative, and errors in measurements were kept to a minimum.

2. Administration of Research Schedules.

The personal interview mothed was used in administering all of the six schedules used in this study. The advantages of this methos of investigation were several, e.g., it facilitated the stimulation of respondents' interests, probing addition to being the only possible method that applies to illiterates respondents.

3. Coding and Analysis of Data.

Responses were analysed in such a way that various dimensions of the responses were sharply defined and differenciated. Responses then were coded, punched on cards and sorted. The data then was processed into simple and complex tables in accordance with the objectives of the study.

B. Official Records.

The schedules designated for illiterate workers in industry consisted of several questions, the replies to which could only be obtained from the official records for these workers. Such questions pertain to absence, sickness, holidays, sickleaves, indebtedness, rewards and punishments.

C. The Sample.

1- Size of the Sample

The total sample consisted of 707 persons distributed according to sectors and categories as follows:

	Agriculture	Industry	Total
Illiterates	107	91	198
Literates	103	83	186
Production-Supervisors	133	190	323
Total	343	364	707

In selecting the members of the of the sample sequential analysis method was applied in order to ensure adequate representation of the sample. The sample was increased to the extent that the results of responses reached the consistency level.(1)

2- Characteristics of the Sample.

In investigating the characteristics of respondents (illiterate and literate farmers and workers as well as supervisors in agriculture and industry) several variables were used in order to arrive at certain generalizations of the results of this research.
The main variables used in this study were the following:

1) geographical distribution, 2) age, 3) occupation, 4) marital status, 5) membership in organizations, and 6) social and economic standards.

Members of the sample in the agricultural sector were distributed among 7 sub-districts represnting various

(1) Nagieb Iskander and others, Scientific study of Social Behaviour, Modern Publishing Association, 1961 + pp. 198-202.

agricultural production and rural structures in the province of menoufia. As for the industrial sector, sample represented workers and supervisors in major enterprises in Egypt such as textiles, silk, iron and steel, and metal corporations.

In terms of occupation, about one third of the literate and illiterate farmers were wage earners working on farms, while the remaining two thirds were farm-owners. Agricultural supervisors worked in cooperative societies in various advisory and supervisory capacities. The Occupations of the Industrial Workers (literates and illiterates) varied according to level of education. Most of the illiterates were engaged in non-technical jobs on production lines.

About half of the literates were in technical work and the remaining half in various jobs related to production. Two thirds of the industrial supervisors worked as heads of groups engaged in direct production activities.

The marital status of the majority of respondents indicated that they were married with an average number of children family size ranging between 2-5.

In terms of participation in organization and social groups the majority of responents were members in one or two organizations in the local community or the respective industry such as the cooperative socity or the Socialist Union.

The majorty of literate workers and farmers indicated that they had reached the functional literacy level, i.e. fourth elementary grade level.

As for supervisors in agriculture, the majority acquired technical high school certificates or a university degree.

The educational level of industrial supervisors ranged as follow: one third completed elementary schools, about one-third obtained high school technical sertificates, and the remaining one third completed intermediate high school.

In terms of economic status, about half of both the literate and the illiterate farmers did not own land, while the other half were owners of land in size between 1-3 Kirates and 3 Feddans.(1) The monthly income of agricultural supervisors ranged between 15 and 35 Egyptian Pounds with a mediam of about 22.7 pounds.(2) In the industrial sectors, literate and illiterates workers received a monthly income ranging between 6 to 21 Egyptian Ponunds with a median of 13 Pounds for illiterates and 14 for literates. Industrial supervisors received monthly income ranging 15 and 40 Egyptian Pounds with a median of 31.18 Pounds.

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(1) One Feddan is equivelent to 24 Kirats, and each Kirat equals 175 square meters.

(2) One Egyptian Pound is equivelent to $ 3.32.

III. RESULTS OF THE STUDY

A. Socio-Economic Impact of Illiteracy.

In order to evaluate the social and economic impact of illiteracy, respondents were asked to express their opinions on two types of problems facing production as a result of illiteracy:

1) Problems which relate directly to production at work, and
2) problems which relate indirectly to production such as status at home or community.

1. Problems of Illiteracy With Direct Impact on Production.

Table 1 show the most important problems which relate directly to production and productivity as a result of illiteracy

Table 1

Distribution of Respondents according to Most Important Problems Affecting production Directly as Result of Illiteracy

Production Problems	Agricultural Sector			Industrial Sector	
	Illit.	Lit.	Super.	Lit.	Supervisors
1. Work does not require communication skills	0	0	0	10	35
2. Inability to sign or carry out duties requiring comm. skills	31	0	0	0	0
3. Desire to quit Farming	24	0	0	0	0
4. Inability to follow written work instructions	20	92	109	65	131
5. Difficulty in getting along with others	0	9	16	1	0
6. Inability to carry out responsibilities	0	0	5	0	11
7. Other responses.	19	0	0	0	0
	94	101	130	76	177

Illiterate workers were not asked this question. Those who did not answer this question were 13 illiterate farmers, 2 literate farmers, 3 agricultural supervisor, 7 literate workers and 13 industrail supervisors.

Table 1 indicates that the most important problems which farmers and workers encounter during their work are as follow:

1) Inability to undertake jobs requiring knowledge and skills in reading and writing.
2) Inability to leave farm work
3) Difficulties in carrying out instructions and orders pertaining to production, in addition to facing difficulties in dealing with others.
4) Inability of carrying out responsibilities or evaluating the consequences.

2. Problems of Illiteracy with Indirect Impact on Production.

Table 2 shows the distribution of responses according to types of problems encountered outside work as a result of illiteracy:

Table 2

Distribution of Respondents according (1)
to Types of Problems Encountered Outside Work as a
Result of Illiteracy

Types of Problems	Literates				Supervisors			
	Farm.		Workers		Agric.		Indus.	
	NO	%	NO	%	NO	%	NO	%
Personal problems due to ignorance	61	61.6	33	42.3	40	31.7	47	28.1
Maladjustment and difficulty in dealing with others	10	10.1	6	7.7	40	31.7	38	22.8
Inability to balance income with expenditure plus not interseted in educating children	14	14.1	5	6.4	11	8.7	42	25.1
Other problems	14	14.1	34	43.6	35	27.8	40	24.9
Total	99	99.9	78	100.0	126	100.0	167	100.0

Table 2 indicates that the important problems stated by literate farmers, workers and supervisors encountering illiterates in their daily life outside work environment were as follows:

1) Personal problems caused by ignorance and lack of mastering communication skills,

---

(1) Those who did not respond to the question were: 4 farmers, 5 workers, and 7 agricultural and 23 industrial supervisors.

(2) The problem of " inablity to balance between income and expenditure" was added to the problem, " not being interesbed in educating children" because responses of the latter were few and insignificant.

2) maladjustment to the changing conditions and finding difficulties in dealing with others,

3) inability to make a balance between income and expenditure plus lack of interest in educating children.

B. Socio-economic Impact of literacy.

The relationship between education and socio-economic development has been an important theme of several scientific studies. Preliminary findings indicated a positive relationship between illiteracy and national income in the sense that education and literacy were positively correlated with growth of national income. In other words the rate of development is higher in countries with high rates of educational achievement. Underdevelopment could be readily felt in the countries with a low ratio of educated persons at various levels.(1)

This study sought to find out to what extent the traditional (mass) literacy programmes had an impact on socio-economic activities, e.g., the contributions made by farmers and workers who became literates towards increasing production on the one hand, and decreasing production costs on the other.

Table 3 shows the distribution of responses in industrial and agricultural sectors concerning the economic impact of literacy:

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(1) Unesco, World Illiteracy at Mid Century, Fundamental Education Monograph No. XI, Unesco, Paris 1965, P 176.

Table 3

Distribution of Respondents according to (1)
Impact of Traditional Literacy Programmes on Increasing Production

Type of Impact	Agric. Production				Industrial Production			
	Lit. Farm		Sup.		Lit. Work.		Super	
	No	%	NO.	%	No	%	NO	%
There is a positive impact of Traditional Lit. Prog. on Produc.	57	62.0	76	57.1	31	41.3	68	35.8
There is no positive impact of Trad. Lit. Progra. on produc.	35	38.0	57	42.9	44	58.7	122	64.2
Total	92	100.0	133	100.0	75	100.0	190	100.0

Table 3 indicates that 62% of literate and 57.1% of agricultural supervisors expressed positive attitudes towards the impact of traditional literacy programmes on increasing production. The remaining respondents felt the contrary.

In case of the industrial sector 58.7% of literate workers and 64.2% of supervisors felt that tradicational literacy programmes had no positive impact on production.

(1) Those who did not reply to this question were: 11 literate farmers and 8 litrate workers.

In short, there was a split of opinion among respondents in the two sectors on whether there was a real impact of literacy on increasing production or not. The general trend, in the agricultural sector was that literacy had an appreciable impact on increasing production as reflected in the opinions of about 60% of respondents as against 40 % representing those who did not feel any impact. In the case of responses in the industrial sector, the revers was true.

C. Comparing Socio-Economic Impact of Illiteracy With That Of Literacy.

In this study, the aim was to compare performance of illiterates and literates with respect to certain production activities in industry and agriculture. Since production processes and activities vary in both sectors comparison was limited to economic aspects envolving the performance of the literates and the illiterates in each sector separately. In this comparison, the following agricultural operations were investigated :

1- basic farming operations
2- farming activities related to plant diseases
3- farming policies
4- cooperative activities
5- modern methods in increasing income
6- activities related to live-stock production

In order to provide comparison between the socio-economic impact of illiteracy and that of literacy, the level of effectiveness was used. The objective of using the level of effectiveness as a measurement device is to transfer the verbal responses to quantifiable amounts in order to evaluate the extent of effectiveness of the impact of literacy when compared with illiteracy.

The numerative value of the measure of level of effectiveness was given a number ranging between - 100 % and + 100 %. The number + 100 % refers to the highest impact or effectiveness that literacy programmes could have, and the number - 100% is the lowest impact or effectiveness that literacy programmes could have, while the number (zero) refers to the fact that literacy programmes have neither a positive nor negative impact or effectiveness.

In order to provide an account of the general trends the following methods was applied in analysis:

1- Calculate level of effectiveness to each aspect of social economic and psychological aspects, according to the responses of each category, and

2- Calculate quadrant co-effeciant between level of effectiveness of responses in each sector.

The following Table shows the coefficiant coorrelation among respondents in both agricultural and industrial sectors:

Table 4

Coeffecient Correlation of Level of Effectiveness within Agricultural and industrial Sectors

Sectors	Comparative Analysis of Responses	Quad. Coef.	Level of Signif.
Agricultural	Literate Farmer VS Agric. Superv.	00,78	,001
Industrial	Literate Worker VS Indust. Superv.	00,88	,001

The Table Idicates the following results:

1 - In spite of diversity in the views of respondents in each

sector, nevertheless there was a statistically significante agreement, at less than, ·001 level in evaluating the relative impact of literacy on the variuos attitudes and practices treated in this study.

2- The results provide assurance that impressions of respondents on the impact of literacy VS. illiteracy on socio-economic and psychological aspects do represent a true picture of the prevailing general attitudes of the larger population in both sectors. The level of significante in each sector was very high, at less than, ·001 level.

The ultimate goal of analyzing the level of effectiveness of the socio-economic and psychological impact of literacy and illiteracy is to make use of the finding in future literacy educational programmes. Contents of educational materials, as well as curricula and subject matter can be prepared and organized in view of the importance attached to each of the practices and attitudes treated in this study. Such inclusion will contribute to arriving at more effective literacy programmes linked with socio-economic development.

With this in mind it was found relevant to arrange the various practices analyzed earlier according to the mean of level of effectiveness in order of importance, in the following Tables.

Tables 5

Level of Effectiveness of Impact Literacy on Social, Economic and Psychological Aspects in Agricultural Sector (Arranged in order of importance)

No.	CONTENT	Mean Of Effect.
1	Frequent irrational complaints	19.6
2	Not leaving soil to rest between crops	23.6
3	Sufficient quantities of natural fertilizer	25
4	Marketing sufficient quantities of produce	46.4
5	Excessive expenditure of prohibited drugs	48.4
6	Insurance on livestock	49.6
7	Combating plant diseases.	50.2
8	Harmed by use of insecticides	51.3
9	Likes to marry more than one wife	52.6
10	Tends to save for future	55.1
11	Irrigation according to precribed schedule	55.2
12	Always indebted	56.2
13	Early farming	56.9
14	Use of machine in farming operation	57.2
15	Adequate service of soil	58.8
16	Use of chemical fertilizers	59.7
17	Growing vegetables	64.3
18	Following agricultural instructions	65
19	Spending cooperative loans in farming	65
20	Likes to have many children (large family size)	69.9
21	Inoculation of livestock against diseases	68.6
22	Concern for teaching of children	68.8
23	Treatment of livestock at veterinary clinic	69.8
24	Seeks advice of agricultural technicians	70.2

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22	Concern for teaching of children	68.8
23	Treatment of livestock at veterninary clinic	69.8
24	Seeks advice of agricultural technicians	70.2

No	CONTENT	Mean of Effect.
25	Confidences in cooperatives' accounts	70.6
26	Impelementing agricultural rent laws	71.4
27	Raising bees and silkwarms	75.4
28	Use of improved seeds	77.1
29	Use of artificial ensemination for livestock	77.4
30	Employing modern farming techniques	78.2
31	Disbelief in wictchcraft and folk medicine	80.2
32	Plans for everything in life	81.4
33	Raising improved breeds of poultry	82.1
34	Not easily deceived	82.8
35	Knowledge in plant diseases	87.4
36	Knowledge of types of cooperative loans	90.0
37	Knowledge of his indebtedness of Agric. cooperative	94.4

Table 6

Level of Effectiveness of Impact of Literacy on Social, Economic and Psychological Aspects in Industry

(Arranged in order of importance)

No	CONTENT	Mean of Level of effect.
1	Responding to material incentives and rewards	24.1
2	Prevention of sickness	25.6
3	Laziness and slowness at work	27.9
4	Frequent absence from work	29.8
5	Treatment at physician's clinic	31.3
6	Concern about educating children	33.7
7	Exherting extra effort in producing sufficient quantity of production	34.4
8	Tends to save for future	36.2
9	Wasting time during work hours	37.6
10	Need for Constant Supervision at work	38.2
11	Always indebted	40
12	Creatin problems at work	43.1
13	Spending most of income on prohibited drugs	43.5
14	Frequent irrational complaints	46.6
15	Cooperating with supervisors and colleagues at work	48.9
16	Positive response to non-material incentives	51.2
17	Likes to marry more than one wife	55.6
18	Refinement of production with least mistakes	56
19	Working hard to promote one's self	57.7
20	Proper maintainence of machines.	61.2
21	Learning new skill of the trade	64.2
22	Plans for everything in life	64.8

No	CONTENT	Mean of Level of Effect.
23	Adequate use of raw materials	65.2
24	Suggesting new ideas to utilize time and raw materials in production	68.4
25	Likes to have many children (large family size)	68.4
26	Suspicion in accounts of payment voucher	70.1
27	Understanding work instructions and implementing them	79.8
28	Can easily fooled	80.4
29	Belief witchcraft and folk medicine	82.2
30	Implementation of safety regulations	82.8
31	Interest in participation in training programmes	84.1

D- Comparative Social Behaviour of Literates and Illiterates.

In the previous pages, the attempt was made to analyze the socio-economic impact of illiteracy vs. literacy from the point of view of literate farmers, literate workers and supervisors in agriculture and industry. In this part of the study the behaviour of illiterate and literate industrial workers will be analyzed in light of available official records. Since the behaviour of literate and illiterate farmers could not very well be checked on the basis of official records, investigation in this respect was limited to industrial workers.

Social indicators used for comparison were the following:

1- frequent absance
2- pretending sickness
3- leave for sickness
4- loans
5- training
6- punishment at work
7- rewards at work

The data on each of the above items was taken in the year 1968, for which complete and registered information was available.

Analysis of data derived from records on each of the above mentioned indicators revealed no indication of a real difference between literate and illiterate workers in general, although certain differences existed in favor of illiterates. This difference, however, could not be totally attributed to acquisition of literacy alone, since other environmental factors tend to play an important role in shaping the behaviour of workers. Future literacy programmes may very well assist illiterates in gaining more confindence in themselves and in acquiring the types of skills which would enable

them to adapt to the literate world with more readiness to overcome the various social, psychological and economic problems. Literacy programmes should take into consideration not only the acquisition of reading and writing skills, but also vocational training as well as behavioural aspects tailored to their prevailing socio-economic conditions and problems.

Reservations should be made in studying the impact of literacy on behavioural aspects from the records and files. Some of these reservations pertain to the basis and provisions for application of rewards and punishments, to accuracy in keeping records and files, and finally to the length of period during which the real impact of literacy could very well be measured.

E- Evaluation of Current Literacy Programmes.

The objective of evaluating the traditional literacy programmes is to assess the main advantages and disadvantages of these programmes in order to reinforce the pos itive aspects and to avoid shortcomings in view of the prevailing needs and development tragets.

1- Advantage of Traditional Literacy Programmes.

Advantages of any literacy programme are measured in terms of their real impact on the changes it makes in the respective human and physical evironments. In economic terms, advantage are viewed by way of calculating the returns, e.g. increase of production output, improvment of efficiency, quality of products, etc. In social terms, however, the feedback of literacy programmes are reflected in changes in behavioural orientations of literates in the social milieu and their ability to make the necessary adaptation and accomodation to the changing socio-economic processes.(1)

(1) I.Y.Qutub, " An Empirical investigation on the Transition from Traditional to Functional Literacy in the UAR, P. 7.

a- In the Agricultural Sector.

Whem respondents in the agricultural sector were asked to state their opinions and attitudes towards current literacy programmes in their present form, responses varied as explained in the following Table:

Table 7

Distribution of Respondents according to Advantage of Traditional Literacy Programmes

N = 314

ADVANTAGES	Illit. Farmers		Lit. Farmers		Supervisors	
	NO	%	NO	%	NO	%
Learning, reading, writing & arithmetic	90	84.1	69	73.4	54	47.8
Acquiring general knowledge	0	0	11	11.7	18	15.9
The above two items combined	0	0	7	7.4	32	28.3
General educations effect on work opportunities.	10	9.3	0	0	0	0
Others	7	6.5	7	7.4	9	8.0
Total	107	99.9	94	99.9	113	100.

Those respondents who did not reply on this question were 9 literate workers and 20 agricultural supervisors.

The table indicates that the majority of respondents gave highest weight to opportunity of learning communication skills (reading, writing and arithmetic) as the main advantage of the traditional literacy programmes (80.2 % at the avrage). At the same time, 44.2 % of the agricultural supervisors and 19.1 % of the literate farmers mentioned general knowledge as the main advantage of the traditional literacy programme.

In short, the data reveals that the advantages of the traditional literacy programmes are viewed in the following order of importance:

a- teaching communication skills

b- providing general information and knowledge

c- providing, to some extent, new employment opportunities.

still remain as a source of attraction in the agricultural sector since it plays an important role in irradicating the illiteracy of farmers.

b- In the Industrail Sector.

Illiterate and literate workers, and industrial supervisor wer asked to express their opinions and attitudes toward traditional literacy programmes, Their responses were as follows:

Table 8

Distribution of Respondents in Industrail Sector according to Their Views on Advantage of Traditional Literacy Programmes

N = 340

A D V A N T A G E S	Illit. Worker		Liter. Worker		Supervisor	
	No	%	NO	%	No	%
Teaches communication skills	52	58.4	45	58.4	77	44.3
Teaches general knowledge	0	0	15	19.5	58	33.3
The two combined	0	0	11	14.3	12	6.9
General benefit of education felt at work & life	20.0	22.5	0	0	0	0
Other responses	9	10.1	6	7.8	14	8.0
No advantages	8	9.0	0	0	13	7.5
Total	89	100.0	77	100.0	174	100.0

The table indicates that the majority of illiterate and literate workers as well as supervisors (58.4 %, and 44.3 % respectively) concluded that one of the main advantages of traditional literacy programmes was in the communication skills taught. Next to this, in order of importance, was that it provides general knowledge (33.3 % and 19.5 %) for supervisors and literate workers respectively. Third in order of importance was that it creates new employment opportunities.

2- Disadvantages of Traditional Literacy Programmes.

The disadvantages of traditional litercy programmes, as expressed by literate farmers and workers as well as supervisors in both sectors were related in most cases to situations where they did not feel any impact or any influence of such programmes on production or on general behaviour. Negative attitude towards an object is linked with previous experience and fixation of disappointment in achieving certain expectations in addition to various stimuli existing in the local environment. Changes in attitudes can be brought about by lessening the tention and conflicts with which the person is affected.(2)

The concern in this study was directed towards invistigating reasons and factors underlying disadvantages as expressed by literates and supervisors in both agricultural and industrial sectors. The following Table explains the disparity of opinions among respondents:

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(1) Those who did not reply to this question were 2 literate workers and 16 industrial supervisors.

((2) Ibid, Cited P. 11

Table 9

Distribution of Respondents according to (1)
Disadvantages of Traditional Literacy Methods.

RESPONSE	Acricultural Sector				Industrial sector			
	Literate. Far.		Sup		Liter.Work		Superv.	
	No.	%	No.	%	NO.	%		%
NO disadvantages	79	86.8	48	41,4	39	50.6	60	34.3
Disadvantages existed	12	13.2	68	58.6	38	49.4	115	65.7
Total	91	100.0	116	100.0	77	100.0	175	100.

The table indicates that the atitudes of the respondents in the agricultural and industrial sectors varied towards disadvantages of traditional literacy programmes. The majority of literate farmers (86.8 %) and 50.6 % of literate workers were of the opinion that no disadvantages existed. Supervisors in both sectors expressed the feeling that disadvantages existed in traditional literacy(58.6 % and 65.7 % in agricultural and industrial sectors respectively).

The analysis of underlying factors contributing to the responses in the above Table is explained in the following Table:

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(1) This question was asked to literates only . As for those who gave no reply to this question, there were 12 farmers, 17 agricultural supervisors, 6 workers and 15 industrial workers.

Table 10 (1)

Distribution of Respondents according to Reasons Underlying Disadvantages of Traditional Literacy

Factors Contributing to Disadvantage	Agricul. Sector.				Industrail Sector			
	Lit. Work.		Superv.		Lit. Worker		Superv.	
	NO.	%	NO.	%	No.	%	No.	%
Weakness in planning and contents	0	0	48	41.4	11	14.3	43	37.4
Unsuitable timing	7	7.7	0	0	12	15.6	31	27.8
Lack of incentives	3	3.3	0	0	9	11.7	23	20.0
Lack of facilities	0	0	18	15.5	6	7.8	5	3.5
Other responses	2	2.2	2	1.7	0	0	13	11.3
Marginal total	12	13.2	68	58.6	38	49.4	115	65.7
No disadvantages	79	86.8	48	41.4	39	50.5	60	34.3
Geneal Total	91	100.0	116	100.0	77	100.0	175	100.0

The above table reveals two distinct trends in responsers: the first, those who do not see any disadvantage in the traditional literacy programmes (68.8 %, 41.4 %, 50.6 % and 34.3 % of the literate farmers, agricultural supervisors, literate workers and industrial supervisors respectively) , and the second, those respondents who indicated a variety of reasons for the disadvantages of traditional literacy programmes. Among the latter respondents, the reasons given can be arranged in this order of importance: a) weakness in planning and contents,b) unsuitable timing, c) lack of incentives, d) lack of facilities and e) other reasons.

(1) Those who did not respond to this question were: 12 literate farmers, 17 agricultural supervisors, 6 literate workers and 15 industrial supervisors.

In short general feeling of dissatisfaction towards current traditional literacy programmes prevailed among respondents with more weight given to this trend in industry. The rate of dissatisfaction among industrial supervisors was highest while among literate farmers was lowest. In spite of the prevailing disadvantages of current literacy programmes, modern educational pursiuts for adults and illiterates should be linked with development projects and production activities. The paramount need then is not to relinquish traditional literacy endeavours as much as to make the necessary provisions for introducing necessary modifications in adult literacy programmes in order to meet the development needs and problems.

F- Development of Traditional Literacy Programmes.

Literacy campaigns are not new to ARE, most of Arab States and the developing countries. Attempts have made during the last two decades to undertake massive campaigns for erradication of illiteracy. The results, however, did not live up to the expectations of the demands of rapidly changing societies. Literacy programmes should be tailored to socital objectives, the undercurrent changes and relevent development issues in order to provide a constant supply of well trained and literate labours.(1)

By development we mean introducting the necessary modifiactions in the current literacy programmes (traditional methods) so that a transition can be made towards new types of programmes (functional) to meet the demands of modern society in view of the available facilities and resources. The development of a literacy programme entails consideration for developing such aspects as planning, organization, financing, preparation of educational materials, audio-visual aids,research and evaluation tools, selection and training of teachers and trainers, etc.

(1) Bashir El-Bakri, Al-Ahram Journal - Egypt, March 5, 1971 P.7.

This study, however, focused on the assessment of the impressions of respondents in agricultural and industrial sectors on the following issues most relvent to the development of any adult education programme:

1- Importance of educational materials
2- Subjects which should be taught
3- Motivation for learners
4- Attitudes towards functional literacy
Providing adequate environment for workers

In order to provide an account of the distribution of responses on the main issues mentioned above, a brief analysis and treatment will be discussed.

1- Importance of Educational Materials.

In order to compare the sequence of importance attached to the content of educational materials and curricula as indicated in the responses of supervisors in the agricultural and industrial sectors the following Table shows the distribution of type of educational materials required in order of importance:

Table 11

The Order of Importance Attached to Subjects in Current Literacy Programmes Viewed by Supervisors in Both Sectors

S U B J E C T	Order of import. in general	Order of Imp. in Agricult.	Order Of Impt. In Industry
Reading	1	1	1
Religion	2	-	2
Writing	3.5	-	4
Experience and skills	3.5	4	3
Natinal and Politic. Educ.	5.5	5	6
Health Education	5.5	6	5
Arithmetic	7	7	7

The Table indicates that supervisors in agriculture and industry are in general agreement about the importance of all the subjects

given and the order of their importance. Reading was accorded highest importance, followed by religious subjects, writing, experience and skills pretaining to work, national and political education, health education and finally arithmetic.

It is evident that the importance attached to acquisition of experience and skills, and various types of educational pursuits reflects, to a large extent modern trends in adult education, i.e., the functional approach which combines communication skills with vocational and behavioural aspects.

2- Subjects Which Should be Taught.

This study was concerned in assessment of opinions and impressions of respondents in both sectors, separately, towards the subjects which should be included in the modified literacy programmes, in addition to communication skills (reading, writing and arithmetic). The following Table shows the distribution of responses in the agricultural sector on the preferred subjects:

Table 12 (1)

Distribution of Respondents according to Importance of Subjects in addition to Communication Skills in Improved Literacy Programme in Agricultural Sector

Most Important Subjects	Illit. Farm		Lit. Farm.		Agric. Superv.	
	No	%	No	%	No.	%
Reading & Writing only	20	20.4	10	10.3	4	3.1
Increasing Production	45	45.9	53	53.6	70	54.3
Polit., Social and Religious Education	15	15.3	17	17.5	30	23.3
General Education Increasing Production	0	0	17	17.5	25	19.4
Other Responses	18	18.4	0	0	0	0
Total	98	100.0	97	99.9	179	100.0

(1) Those who did not respond to this question were 9 illiterates, 6 literates and 4 supervisors.

The most important subjects indicated by respondents in the agricultural sector which should be included in the improved literacy curricula were classified in the following order:

a) Subjects relevant to increase of production and productivity. Those giving this preference were 45.9 % of illiterate farmers, 72.1 % of literate farmers and 73.7 % of supervisors,

b) Subjects treating national, political, social and religious issues were indicated by 15.3 % of literate farmers and 42.7 % of supervisors.

c) Other subjects mentioned by 18.4 % of literate farmers.

d) Those who indicated that only reading and writing were sufficient represented 20.4 % of illiterate farmers, 10.3 % of literate farmers and 3.1 % of supervisors.

In the case of the industrial sector, the following Table shows trends in the responses of illiterate workers, literate workers and industrial supervisors in relation to their preference of subjects in addition to reading and writing which should be included in the modified literacy programmes.

Table 13 (1)

Distribution of Respondents according to Subjects Preferred in Modified Literacy Programmes in Addition to Reading and Writing - (Industrial Sector)

Most Important Subjects	Illit.	Work.	lit.	work	Ind.	Superv.
	No.	%	NO	%	No.	%
Only Reading & Writing	9	10.6	7	8.6	8	3.2
Subjects Related to Increasing Production	62	72.9	43	53.1	87	46.5
Politic., Social and Religious Education	14	16.5	14	17.3	31	16.6
General Education and Increasing Production	0	0	17	21	63	33.7

The Table indicates that respondents in the industrail sector emphasize the importance of those subjects linked with production activities. Workers in industrial production gave preference to the subjects which deal, first, with industrial peoduction and second, with general knowledge. This is a manifestation of an increasing concern for meeting the needs of improvement in production both qualitatively and quantitatively, and for expansion in socio-economic development at large.

2- Motivation for Learning.

Social psychologists emphasize that successful learning is based on a certain amount of qualitative and quantitative motivation. Motivation for literacy can be defined as " such processes as would induce the illiterate person to act for acquiring the skill of reading and writing. In order to make him act, he has to be prevailed upon and persuaded to the extent of generating an urge for action utilizing own efforts to become a literate". (2)

(1) Those who did not answer this question were 6 illiterates, 2 literates and 3 industrial supervisors.

(2) Indian Journal of Adult Education, February, 1969 P. 2

In order to assess the ways in which illiterates can best be used for motivating them towards participation in literacy programmes, respondents were asked to state their opinions on the most important device which can be encourage illiterates to join literacy classes and benefit from them. The following Table reflects the responses of literates and supervisors on this question:

Table 14 (1)

Distribution of Respondents according to Modivational Devices for Learners

RESPONSE	Agricul. Sector				Industrial Sector				TOTAL	
	Lit. Far		Superv.		Lit.Work.		Superv.			
	NO.	%	NO.	%	No.	%	NO.	%	No.	%
Material & Nonmaterial Incentives	23	24.7	51	38.9	57	68.7	146	77.2	277	55.8
Proper Campaigns	41	44.1	29	22.1	10	12.0	17	9.0	97	19.6
Content of Prog.	8	8.6	23	17.6	0	0	0	0	31	6.8
Real Interest to Learner	15	16.1	0	0	0	0	0	0	15	5
Proper Facilities	0	0	0	0	4	4.8	3	1.6	7	1.6
Other Factors	6	6.5	28	21.4	12	14.5	23	12.2	69	13.9
Total	93	100.0	131	100.0	83	100.0	189	100.0	496	100 %

The Table indicates that literates and supervisors in the agricultural and industrial sectors were in total agreement concerening the importance of incentives in literacy programmes. In addition the importance of stimulating the interest of learners through campaigns and pointing out the literacy classes were among the motivational devices suggested by respondents.

(1) Those who did not answer this question were the following: 10 farmers, 2 agricultural supervisors and 1 industrial supervisor.

It is relevant to point out that type, quality and application of motivational devices vary according to the sector and other prevailing conditions.

4- Attitudes Towards Functional Literacy.

Functional literacy is an educational system, linked with other socio-economic systems in the country, which attempts to provide illiterates and semi-literates with the necessary skills in reading, writing and arithmetic integrated with vocational training as well as behavioural aspects in view of the development needs, tragets and bottlenecks. The educational programmes are tailored to the needs and problems of the location be it agricultural, industrial or that which provides types of services. The programme contents are derived from the work-life environment of the learners and are in turn fed back in to the curriculum and the relevant educational programme as a whole.

Respondents (illiterate farmers and illiterates workers) were asked to express their opinions and attitudes towards the linkage of functional literacy programme with development projects . The distribution of their responses was given in the following Table:

Table 15 (1)
Distribution of Respondents according to Attitudes Towards Functioanl Literacy Programme

RESPONSE	Illit. Farmer		Illit. Worker		TOTAL	
	No.	%	No.	%	No.	%
Support the idea of linking literacy with production	96	92.3	86	95.6	182	
Other Responses	8	7.7	4	4.4	72	___
TOTAL	104	100.0	90	100.0	194	

(1) Those who did not reply to this question were 3 farmers and 1 worker.

The Table indicates a strong feeling among illiterate workers and farmers towards the functioanl literacy approach.

This trend assures the administrators, planners and those engaged in literacy activities that functional literacy programmes are needed and favorably supported by illiterates in both the agricultural and industrial sectors. Efforts should be made to modify the present literacy programmes towards functionality, and / or start projects in which functional literacy programmes can be an integral part.

5- Work Environment.

In order for functional literacy programmes to have a direct impact on increasing productivity and on the general behaviour of the learners, literate workers and industrial supervisors were asked to state their opinions about the changes required in the present work environment so that literacy programmes would have real impact on production and the behaviour of learners. The distribution of their responses was as follows:

Table 16

(1)

Distribution of Respondents according to Proposed Changes in Work Environment

N = 232

Changes Proposed	Literate Worker		Ind. Supery.		T O T A L	
	No.	%	No.	%	NO.	%
New incentives for learning	21	28.8	32	20.1	53	22.8
New treatment of workers by administration	14	19.2	31	19.5	45	29.4
New system for wages and rewards	6	8.2	9	5.7	15	6.5
Other responses	6	8.2	9	5.7	15	6.5
Did not know	26	35.6	78	49.0	104	44.8
TOTAL	73	100.0	159	100.0	232	100.0

(1) Those who did not reply on this question were: 10 workers and 31 supervisors.

The Table indicates that literate workers and industrial supervisors are in agreement on the importance of introducing the following changes (in order of importance) in the work environment:

a) Create new incentives for learing among illiterates
b) Improve mangement treatment of workers
c) Establish new provision for wages, increments and rewards.

Applying the . test, there was no indication of a statistically significant difference in their responses, which means that they gave the same weight to the above proposed changes in the given order of importance.

In short, there seems to be ample evidence of acceptance of functional literacy programmes in both the agricultural and industrial sectors. A health environment should be the foundation upon which any functional literacy programmes is established, continued and expended.

IV- Conclusion

The foregoing pages in this study sought to explain the social and economic impact of illiteracy in comparison with the social and economic impact of literacy. Attention was given also to projecting future trends for development of current literacy programmes in view of present development plans and projects.

The opinions and impressions of respondents (illiterates, literates and supervisors) in the agricultural and industrial sectors which were expressed on the various issues inherent in the prevailing socio-economic impact of illiteracy vs. literacy. Although it is difficult to isolate the factor of illiteracy or literacy as an attribute of socio-economic and psychological changes at the at the indivdual or the community levels, nevertheless, literacy can be considered among the important variables in measuring change.

The concensus of opinions concerning current literacy programmes was that, in spite of the fact that communication skills (reading, writing, and arithmetic) are still viewed as important, there was an expressed need for subjects and educational materials and aids relevant to production in agricultural as well as in industry.

The need to modify current literacy programmes was clearly identified by farmers, workers and supervisors. Improvement and modification in adult education programmes should be as functional as possible and related to the work-life environment in addition to its direct linkage with development programmes.

There is a need on the part of educationists, sociologists, psychologists and economists to make further scientific investigations in literacy programmes can be organized in such a way that they provied the masses of illiterates with the necessary education and training within short period of time, at minimum costs to achieve the highest possible returns. Research and evaluation studies carried out by an interdisciplinary teamwork of social scientists can very well contribute to the improvement of literacy programmes, as well as to the designing of functional programmes tailored to various development projects.

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